WHAT IS CLAIMED IS:

1. A process for producing scrambled egg product comprising:

first heating a liquid egg product to a temperature less than a cooking temperature for the egg, but a temperature which is sufficiently high to prevent heat shock of the liquid egg product and prevent non-uniformity in the scrambled eggs produced by the process to provide an initially heated liquid heated egg product;

further heating the initially heated liquid egg product to provide a homogeneously heated egg, the further heating to a temperature effective for cooking the egg and effective for causing the heated liquid whole egg product to coagulate when the liquid egg product is held in a holding tube;

transporting the homogeneously heated liquid egg product to a holding tube;

holding the homogeneously heated liquid egg product in the holding tube for an amount of time effective for forming a fully coagulated egg;

stopping and starting a flow of the homogeneously heated liquid egg product in the holding tube for providing a discontinuous flow of the homogeneously heated liquid egg product in the holding tube and effective to reduce laminar flow of the homogeneously heated liquid egg product in the holding tube compared to a laminar flow of the homogeneously heated liquid egg product which would develop in the holding tube without the stopping and starting; and

removing the fully coagulated egg from the holding tube to form a scrambled egg product.

2. A process as recited in claim 1 wherein the first heating heats the initially heated liquid egg product to a temperature of from about 130°F to about 154°F in about 1 to about 25 minutes.

3. A process as recited in claim 1 wherein the initially heated liquid egg product is further heated by injecting steam into the initially heated liquid egg product.

4. A process for producing scrambled egg product comprising:

first heating a liquid egg product to a temperature of from about 130°F to about 154°F to provide an initially heated liquid egg product having a viscosity in the range of from about 100 cps to about 1500 cps;

injecting steam into the initially heated liquid egg product to provide a steam heated liquid egg and to bring the initially heated liquid egg product to a temperature effective for causing the initially heated egg product to coagulate when the liquid egg product is held in a holding tube;

transporting the steam heated egg product to a holding tube;

holding the steam heated egg product in the holding tube for an amount of time effective for forming a cooked egg product having a firmness of at least about 20 mm;

stopping and starting a flow of the steam heated liquid egg product in the holding tube, the stopping and starting effective for providing a discontinuous flow of steam heated egg product in the holding tube and effective to reduce laminar flow of the steam heated egg in the holding tube compared to a laminar flow of steam heated egg which would develop in the holding tube without the stopping and starting; and

removing the cooked egg product to form scrambled egg product.

5. The process as recited in claim 4 wherein the steam injection heats the steam heated liquid egg product to a temperature of from about 163°F to about 175°F.

6. The process as recited in claims 4 or 5 wherein the steam is injected at a pressure of from about 20 to about 40 psi.

7. A process for producing scrambled egg product comprising:

first heating a liquid egg product to a temperature of from about 130°F to about 154°F to provide an initially heated liquid egg product having a viscosity of in the range of from about 100 cps to about 1500 cps;

injecting steam into the initially heated liquid egg product to provide a steam heated liquid egg and to bring the initially heated liquid egg product to a temperature effective for causing the initially heated egg product to coagulate when the liquid egg product is held in a holding tube;

transporting the steam heated egg product to a holding tube;

holding the steam heated egg product in the holding tube for an amount of time effective for forming a cooked egg product;

stopping and starting a flow of the steam heated liquid egg product in the holding tube, the stopping and starting effective for providing a discontinuous flow of steam heated egg product in the holding tube and effective to minimize a radial velocity gradient in the flow of the steam heated egg in the holding tube compared to a radial velocity gradient of steam heated egg which would develop in the holding tube without the stopping and starting; and

removing the cooked egg product to form scrambled egg product having a homogeneous firmness throughout the egg product in the range of from about 20 mm to about 50 mm.

8. A process for producing scrambled egg product comprising:

heating a liquid egg product to a temperature of from about 130°F. to about 154°F. to provide an initially heated liquid egg product having a viscosity in the range of from about 100 cps to about 1500 cps;

injecting steam into the initially heated liquid egg product to provide a steam heated egg product having a temperature effective for causing the heated egg product to coagulate and cook in a holding tube;

transporting the steam treated egg product to at least two holding tubes,

holding the steam treated egg product in the holding tubes for an amount of time effective for forming a cooked egg product;

alternating the flow of eggs to the at least two holding tubes to stop and start the flow of the steam treated egg in the holding tubes effective for providing a discontinuous flow of steam treated egg in the holding tube; and

removing the cooked egg product to form the scrambled egg product.

9. A process as recited in claim 8 wherein the scrambled egg product has a homogeneous firmness of from about 20 mm to about 50 mm.

10. A system for producing scrambled egg product, the system comprising:

a holding tank effective for holding a liquid egg product at below a temperature of about 50°F;

a heat exchanger effective for heating the liquid egg product from the holding tank to a temperature in the range of from about 130°F. to about 154°F. to provide an initially heated liquid egg product;

a steam injection device effective for injecting steam into the initially heated liquid egg product and providing a steam heated liquid egg product, the steam effective for heating the initially heated liquid egg product to a cooking temperature;

at least two holding tubes which receive a flow of steam heated liquid egg product;

and a valve for controlling the flow of eggs to the at least two holding tubes, the valve effective for stopping and starting the flow of steam heated liquid egg product and switching the flow of egg product between the at least two holding tubes, the at least two holding tubes maintaining the steam heated egg product for a time and temperature effective for cooking the steam heated egg product.

11. The system as recited in claim 10 wherein the system further includes an extruder downstream from the holding tubes for forming scrambled egg product.

12. The system as recited in claim 11, wherein the system provides the scrambled egg product with a homogeneous firmness of from about 20 mm to about 50 mm.

13. A scrambled egg product as shown and described in the scanning electron microscope image of Figure 7.

14. A scrambled egg product as shown and described in the scanning electron microscope image of Figure 6.

15. A process for producing scrambled egg product comprising:

first heating a liquid egg product to a temperature less than a cooking temperature for the egg, but a temperature which is sufficiently high to prevent heat shock of the liquid egg product and prevent non-uniformity in the scrambled eggs produced by the process to provide an initially heated liquid heated egg product;

further heating the initially heated liquid egg product to provide a homogeneously heated egg, the further heating to a temperature effective for cooking the egg and effective for causing the heated liquid whole egg product to coagulate when the liquid egg product is held in a holding tube;

transporting the homogeneously heated liquid egg product to at least two holding tubes;

holding the homogeneously heated liquid egg product in the holding tubes for an amount of time effective for forming a fully coagulated egg;

stopping and starting a flow of the homogeneously heated liquid egg product in the holding tubes for providing a discontinuous flow of the homogeneously heated liquid egg product in the holding tubes and effective to reduce laminar flow of the homogeneously heated liquid egg product in the holding tubes compared to a laminar flow of the homogeneously heated liquid egg product which would develop in the holding tubes without the stopping and starting; and

removing the fully coagulated egg from the holding tubes to form a scrambled egg product.

16. A process as recited in claim 15 wherein the first heating heats the initially heated liquid egg product to a temperature of from about 130°F to about 154°F in about 1 to about 25 minutes.

17. A process as recited in claim 15 wherein the initially heated liquid egg product is further heated by injecting steam into the initially heated liquid egg product.

18. A process for producing scrambled egg product comprising:

first heating a liquid egg product to a temperature less than a cooking temperature for the egg, but a temperature which is sufficiently high to prevent heat shock of the liquid egg product and prevent non-uniformity in the scrambled eggs produced by the process to provide an initially heated liquid heated egg product;

further heating the initially heated liquid egg product to provide a homogeneously heated egg, the further heating to a temperature effective for cooking the egg and effective for causing the heated liquid whole egg product to coagulate when the liquid egg product is held in a holding tube;

transporting the homogeneously heated liquid egg product to at least two holding tubes;

holding the homogeneously heated liquid egg product in the holding tubes for an amount of time effective for forming a fully coagulated egg;

stopping and starting a flow of the homogeneously heated liquid egg product in the holding tubes for providing a discontinuous flow of the homogeneously heated liquid egg product in the holding tubes and effective to reduce laminar flow of the homogeneously heated liquid egg product in the holding tubes compared to a laminar flow of the homogeneously heated liquid egg product which would develop in the holding tubes without the stopping and starting; and

removing the cooked egg product to form scrambled egg product having a homogeneous firmness throughout the egg product in the range of from about 20 mm to about 50 mm.

19. A process as recited in claim 18 wherein the first heating heats the initially heated liquid egg

product to a temperature of from about 130°F to about 154°F in about 1 to about 25 minutes.

20. A process as recited in claim 18 wherein the initially heated liquid egg product is further heated by injecting steam into the initially heated liquid egg product.

21. A system for producing scrambled egg product, the system comprising:

a holding tank effective for holding a liquid egg product at below a temperature of about 50°F;

a heat exchanger effective for heating the liquid egg product from the holding tank to a temperature in the range of from about 130°F. to about 154°F. to provide an initially heated liquid egg product;

a steam injection device effective for injecting steam into the initially heated liquid egg product and providing a steam heated liquid egg product, the steam effective for heating the initially heated liquid egg product to a cooking temperature;

a holding tube which receives a flow of steam heated liquid egg product;

and a means for controlling the flow of eggs to the holding tube, the means effective for stopping and starting the flow of steam heated liquid egg product to the holding tube, the holding tube maintaining the steam heated egg product for a time and temperature effective for cooking the steam heated egg product.

22. The system as recited in claim 21 wherein the system further includes an extruder downstream from the holding tubes for forming scrambled egg product.

23. The system as recited in claim 21, wherein the system provides the scrambled egg product with a homogeneous firmness of from about 20 mm to about 50 mm.

24. A process for producing scrambled egg product comprising:

first heating a liquid egg product to a temperature of from about 130°F to about 154°F to provide an initially heated liquid egg product having a viscosity of in the range of from about 100 cps to about 1500 cps;

injecting steam into the initially heated liquid egg product to provide a steam heated liquid egg and to bring the initially heated liquid egg product to a temperature effective for causing the initially heated egg product to coagulate when the liquid egg product is held in a holding tube;

transporting the steam heated egg product to at least two holding tubes;

holding the steam heated egg product in the holding tubes for an amount of time effective for forming a cooked egg product;

stopping and starting a flow of the steam heated liquid egg product in the holding tubes, the stopping and starting effective for providing a discontinuous flow of steam heated egg product in the holding tubes and effective to minimize a radial velocity gradient in the flow of the steam heated egg in the holding tubes compared to a radial velocity gradient of steam heated egg which would develop in the holding tubes without the stopping and starting; and

removing the cooked egg product to form scrambled egg product having a homogeneous firmness throughout the egg product in the range of from about 20 mm to about 50 mm.